



## IMPACT OF LIPID-LOWERING THERAPY ON CORONARY PLAQUE COMPOSITION IN PATIENTS WITH STABLE AND UNSTABLE ANGINA EVALUATED BY INTRAVASCULAR ULTRASOUND WITH VIRTUAL HISTOLOGY; FINDINGS FROM THE SUBANALYSES OF THE TRUTH STUDY

ACC Poster Contributions

Georgia World Congress Center, Hall B5

Monday, March 15, 2010, 9:30 a.m.-10:30 a.m.

Session Title: Vascular Biology/Atherosclerosis/Thrombosis/Endothelium

Abstract Category: Vascular Biology/Atherosclerosis/Thrombosis/Endothelium

Presentation Number: 1163-329

Authors: Hiroyuki Ozaki, Kazuki Fukui, Yasuo Okusu, Tomoyori Nakatogawa, Takeshi Nakagawa, Kiyoshi Hibi, Takashi Sozu, Terashima Mitsuyasu, Tsuyoshi Nozue, Ichiro Michishita, Kanagawa PTCA Conference Study Group, Department of Cardiology, Kanagawa Cardiovascular and Respiratory Center, Yokohama, Japan

**Background:** Previous trials have shown that lipid-lowering therapy can improve clinical outcomes and achieve regression of coronary plaques. The TRUTH study, a prospective, open-label, randomized multicenter trial, was designed to evaluate the effect of statins on coronary plaque composition in patients with angina pectoris by using intravascular ultrasound with Virtual Histology (VH-IVUS) in Japan. The aim of this subanalysis was to examine the effects of statins on coronary plaques in patients with unstable angina.

**Methods:** Thirty-six patients with unstable angina and 83 patients with stable angina were assigned to either pitavastatin treatment (4mg/day, intensive lipid-lowering) or pravastatin treatment (20mg/day, moderate lipid-lowering). Non-treated plaques on treated vessels were evaluated by VH-IVUS at the time of PCI and after 24-40 weeks of statin therapy.

**Results:** Gray-scale IVUS analysis showed significant decrease of the plaque volume only in the pitavastatin group with unstable angina ( $9.46 \pm 3.1$  to  $8.98 \pm 3.0$  mm<sup>3</sup>/mm,  $P=0.0013$ ). In VH-IVUS analysis, the fibro-fatty component decreased in pitavastatin group with unstable angina ( $1.28 \pm 0.89$  to  $0.78 \pm 0.71$  mm<sup>3</sup>/mm,  $P=0.03$ ), whereas did not changed in pravastatin group with unstable angina ( $1.16 \pm 0.86$  to  $0.96 \pm 0.92$  mm<sup>3</sup>/mm,  $P=0.27$ ). Among patients with stable angina, the fibro-fatty component tended to decrease both in pitavastatin group and pravastatin group (pitavastatin group,  $0.998 \pm 0.87$  to  $0.817 \pm 0.55$  mm<sup>3</sup>/mm,  $P=0.0512$ ; pravastatin group,  $1.01 \pm 1.1$  to  $0.79 \pm 0.83$  mm<sup>3</sup>/mm,  $P=0.0438$ ).

**Conclusion:** Intensive lipid-lowering therapy with pitavastatin may be more effective for stabilization and regression of coronary plaques especially in patients with unstable angina.